Chapter

# Toddlers and Movies: A Fresh Approach

*Cary Bazalgette*



## Abstract

For more than a century, parents have been warned about the supposed dangers of letting children under 3 watch moving-image media. But the evidence on which these warnings are based remains remarkably limited. Crucial failings today include the rarity of ethnographic studies in the home, a prioritisation of research on "digital technologies" and an almost total neglect of toddlers' early cultural experiences with media other than print. This chapter starts from the proposition that research on children and media needs to move away from a preoccupation with risk and to place more emphasis on the crucial but much-neglected 0–3 period, in which, as well as learning to talk, infants and toddlers start learning to understand several significant and unique cultural forms, of which moving-image media (referred to here as "movies") are probably the most prominent for many. Debates about whether we do all have to learn how to understand movies, and the problems of studying toddlers, are discussed. Based on the author's own research and drawing on embodied cognition theories as a rich source of insights into toddler behaviour, three examples of toddler viewing behaviour are described (focused attention, emotional responses and self-directed viewing) and interpreted as potential evidence of learning in progress. The chapter concludes with a discussion of the challenges that must be confronted by those who wish to explore toddlers' "movie-learning" further.

**Keywords:** early years, moving-image media, embodied cognition, ethnography, semiotics, cognition



## 1. Introduction

To argue for the distinctiveness of moving-image media as a cultural form, with its own codes and conventions for the creation of meaning, is to confront the folk-wisdom that moving images simply provide a "window on the world" that anyone can understand. However, the relationship between these two perspectives is a paradoxical one. Between 1895 and 1929, the film industry extended the initial appeal of very early films by evolving what many film scholars and teachers call "film language" and Noël Burch calls the Institutional Mode of Representation: a highly complex system using the many new technologies that emerged in the 1885–1929 period, such as moveable cameras, editing equipment, colour systems and sound recording [1]. Despite the complexity of this language, it was developed precisely to enhance the new medium's appeal to mass audiences by intensifying the illusion of reality that it presented, while continuing to ensure that reading this "language" was a skill that could be learned at a very early age – so early, in fact, that most of us

do not remember learning it. Hence the general assumption – or folk wisdom – that nobody has to learn how to understand moving-image media.

> In this chapter, for brevity's sake, I will refer to moving-image media as "movies" – by which I mean all the moving-image forms which use similar codes and conventions, including, for example, computer games, YouTube videos and advertisements, as well as cinema films and TV broadcasts. I begin by describing the folk wisdom's contribution to an ideology that underpins theories and even policies concerning child management as well as informing the status of movies within hierarchies of cultural value. This frames the central argument of the chapter: that by recognising the distinctiveness and complexity of movie language, we can study and interpret children's movie-viewing behaviour as a learning process, rather than as evidence of passivity or mesmerisation.

Scholars who wish to engage with this argument face considerable ethical and methodological challenges, when it becomes obvious that for most children in industrialised countries this learning must start in their second year of life and be sufficiently complete by the age of around 3 when they start being able to follow and enjoy some mainstream feature-length movies with other family members, and to play increasingly complex games on smartphones or tablets. This chapter discusses the challenges that have led to this age-group (which I will refer to as "toddlers") being significantly under-researched, and it proposes potential solutions to the challenges of trying to understand their early learning about movies. For illustration, I draw on my research experience of studying toddlers within my own family, and on using embodied cognition perspectives in the analysis of video data.

## 2. Children and movies: folk wisdom and its pitfalls

In the UK in 1917, an independent inquiry on children and the cinema, commissioned by the National Council for Public Morals with the backing of cinema exhibitors, concluded that "the cinema, under wise guidance, may be made a powerful influence for good; if neglected, if its abuse is unchecked, its potentialities for evil are manifold." ([2], p. xxi). This judgement encapsulates what could be called the "risks or benefits paradigm" which dominated research and policy in relation to children and movies until the second decade of the 21st century. In all cases, the potential benefits are dependent on substantial safeguards, e.g. "wise guidance", and are not exemplified further than the *possibility* of "influence", whereas the risks look quite threatening: for example it's implied that "abuse" is inevitable. But equally telling is the way movies are referred to: they are not considered as a diverse, complex and evolving cultural form, open to critical analysis, but as a kind of undifferentiated, ever-present phenomenon. This perspective has endured: the idea that television is pretty much all the same and that children are "exposed" to it, rather than watching it (so, a bit like rain) has meant that some researchers have had no qualms about trying to test children's responses to television by getting them to watch commissioned bits of crudely constructed video, rather than actual TV programmes, and had little if anything to say about the stylistic or generic features of TV itself (e.g. [3–8]).

The need for "wise guidance" and the danger of "manifold potentialities for evil" remained the dominant, if less luridly described concerns in research on children's relationships with movies for the rest of the 20th century. Advice to parents based on this research nevertheless had to recognise that most parents were

unlikely to take much notice of detailed guidance for managing their children's movie-watching, given their need for time to cook meals or take showers without having their toddlers underfoot. A compromise was found in the widely-accepted "two-hour rule" – the maximum daily amount of television-viewing that any child of two or older should be allowed (under-twos should not watch at all) – which the American Academy of Paediatrics recommended in 1999 [9] and which has been widely quoted. Today, many parents still nervously try to adhere to it without knowing where it comes from or what the ill-effects of movie-watching are supposed to be. And toddlers can be observed every day in shops, restaurants and public transport, sitting in their buggies or highchairs and happily poring over games, apps or YouTube on their parents' smartphones or on iPads. In February 2021, Google's 16.5 million results for a search on "lists of movies for toddlers" was headed by Good Housekeeping's "The 15+ Best Toddler Movies for When You Need a Short Break", whose introductory text, after a brief nod to the AAP's "two-hour rule", sympathetically supports movies' "child-minder" role, carefully emphasising what we are all supposed to believe: that parents will only want to leave their kids watching movies for a "little bit of time" [10] – although most of the recommended movies are at least 90 minutes long!

The folly of attempting to impose a simple time-based "rule" on a complex cultural activity is finally beginning to be acknowledged: for example, in their study of parental anxieties about "screen time", Blum-Ross and Livingstone argue that "for parents caught between fears of media harms and hopes for a digital future, a more nuanced consideration of the nature and purpose of screen media in different contexts is now urgent." ([11], p. 185). Although they do not go into detail about what "nuanced" and "different contexts" might mean, this is an important challenge to researchers and one that I address in this chapter.

## 3. What toddlers have to learn when they learn to watch movies

In the preface to the second edition of his book *How To Read A Film*, James Monaco asks "Is it necessary, really, to learn how to read a film?" ([12], p. 17). He immediately answers the question: "Obviously, anyone of minimal intelligence over the age of four can – more or less – grasp the basic content of a film, record, radio or television program without any special training." Monaco was a film critic, not a child development specialist: he could be forgiven his easy equation between learning and training, and for forgetting that we all also learn the much more complex systems of verbal language without any special instruction. However, in his 1992 book *Narrative Comprehension and Film,* Edward Branigan re-poses Monaco's question seriously and in more detail, although only in a footnote:

> *It seems remarkable that no one has undertaken to discover what special problems of narrative comprehension may be posed to a child by filmed narratives. For example, when and how do children understand an eyeline match, screen direction, cross-cutting, an unusual angle, off-screen space, or non-diegetic sound? ([13], p. 225)*

Anyone who has taught Film Studies to beginners, even in higher education, will be aware that most adults, let alone children, cannot define any of the six devices that Branigan names, but given that we know (if only on the basis of the Good Housekeeping list referred to above) that by the age of about 3 most children can follow and enjoy at least some full-length mainstream feature films, then it has to be recognised that they can probably "read" these devices before they can speak

fluently. Monaco's dismissive remarks suggest that it's not worth investigating anything that must be so easy to learn that toddlers can do it – although this has not deterred scholars from a huge range of significant research into language acquisition, which happens at the same age. Of course, language acquisition produces evidence in the form of utterances. Evidence of the ability to understand movie language is much harder to pin down.

Paul Messaris argues that many filmic devices, including for example eyeline matches, jump cuts and point of view shots, actually mimic people's everyday perceptions and instinctive behaviour [14], many of which are established in very early childhood. Jerome Bruner describes how, even at nine months old, a child "looks out along the trajectory of an adult's 'point' and, finding nothing there, turns back to check not only the adult's direction of point but the line of visual regard as well" [15, p. 75]: this reflects the mechanisms of the point of view shot (the shot that follows a character assuming a meaningful expression, e.g. delight, terror, etc., as s/he looks at something out of the frame, raising audience expectations that the following shot will show us what s/he is looking at). Similarly, a cut to close-up mimics our behaviour when we suddenly see something we have been looking for (a mislaid bunch of keys, for example) or when we focus in shock on something unexpected (a spider in the bathtub, for example): our attention is tightly focused on the object in question, not on the surroundings. These are just two examples of the ways in which the development of the Institutional Mode of Representation involved moviemakers in creating devices which can seem complex to explain but have what is effectively a metaphoric **r**elationship to human instincts and are therefore easy to learn, as Messaris and Bruner imply.

## 4. The problems of studying toddlers

There is a noticeable gap in the Early Years research literature between studies of infants (i.e. children up to about 18 months old) and pre-schoolers (i.e. children of 3 years and older). Research on this age-group's media-related behaviour is even rarer. As Plowman and Stevenson point out, such studies inevitably involve "practical and logistical considerations including gaining access, involving children as active research participants and negotiating consents" ([16], p. 330), whereas research samples of infants can be reached through clinics and those of children of 3 and up can be reached through nurseries.

The UK's media regulatory body, Ofcom, part of whose remit is to promote and research media literacy, has an excellent, continuing research programme that monitors adults' and children's media use and attitudes and the changing roles of media in people's lives. But it focuses mainly on children aged 5–15, with a smaller programme that gathers data on 3- and 4-year-olds: typically, they have nothing on the crucial 18–24-month period of life. Where toddlers' movie-related behaviour has been studied, scholars have tended to favour experimental methods, (e.g. [5, 17–20]) and large-scale studies have depended on parental surveys (e.g. [21–23]). Experiments and surveys cannot address what Lemish and Rice, in their 6–8-month study of 16 children aged between 6.5 and 29.5 months, call the "the richness of the interactions surrounding the television experience" ([24], p. 261) or what many parents – at least in Anglophone cultures – describe as typical "terrible twos" behaviour: incessantly adventurous, exploratory and self-willed. A more informed Early Years approach recognises that what is most difficult about studying toddlers is also the essential feature of their behaviour: continuous, often playful, self-driven learning.

Because of these challenges, many scholars have pointed out that longitudinal, ethnographically- styled and if possible home-based research models are the only way we can gain a fuller understanding of toddlers' learning behaviours, given that these typically take place in the home environment [25–31]. Family members are well-positioned to undertake this successfully. Scholars who have studied their own children's development, such as Piaget, Britton, Halliday, Weir and Edmiston, have been deservedly influential in the fields of education, Early Years, language and literacy [32–36]. While access, consent and ethical issues in these contexts are different from those in conventional ethnographies, there is a strong case to be made for the value of parental studies when the focus is on toddlers: children who are mobile, learning to talk, but whose language, and much of their behaviour, are idiosyncratic and hard for anyone outside the family to interpret. But as academic gatekeepers tend to be wary of studies that are based on "small samples" and are dubious about the ethical validity of scholars studying members of their own families, it is understandable that such studies are uncommon. This chapter draws on my own doctoral research study of my twin grandchildren's movie-viewing between the ages of 22 and 42 months, in which I used video (taken unobtrusively on a smartphone) to capture aspects of their behaviour [37].

## 5. The relevance of embodied cognition to the study of toddlers

Levels of language development are of course the central issue in trying to study toddlers, if we are trying to gather evidence about their responses and thoughts in relation to movies. But even when toddlers can speak fairly fluently, their ideas and thought processes can still be hard to follow, even if we know them well. What we can also do however is observe their whole-body responses: posture, gesture, facial expressions, eye direction and movement. Although these are mainly instinctive, and can be fleeting, the developing field of embodied cognition theory has much to offer here.

In the Cartesian tradition which dominates popular beliefs about the separation of mind and body, and distinguishes between rational thought and instinctive behaviour, it is seen as important to control our emotions and beware of acting instinctively. Referring to instincts as "primitive" sounds derogatory, but as the neuroscientist Jaak Panksepp explains, the neural structures that govern important instinctive behaviour such as avoiding predators and spotting something edible were present in very early life-forms and many are shared today by all mammals [38]. So metaphoric devices in movies such as the point-of-view shot and the cut to close-up mimic skills that were obviously vital for survival in dangerous environments millions of years ago, and the fact that we all retain them today shows that we still need them. Using an evolutionary perspective to study toddlers' instinctive behaviour can therefore be illuminating: what may often be interpreted as idiosyncratic or inexplicable actions can turn out to be potentially meaningful after all.

Although we differ genetically from chimpanzees by only 1.06% or less of our DNA [39], human babies take much longer than chimpanzee babies to become mobile and dextrous and to be able to eat food other than their mothers' milk. But our big brains and hence our capacity for storing and analysing information, as well as the complex cultures we are all born into mean that, despite being physically almost helpless, human infants must begin social learning from the moment they are born. They communicate emotionally in enjoyable, intersubjective exchanges with their carers: "From birth, a child's learning depends upon sharing his or her impulsive acting and thinking with other familiar persons, who themselves are experimenters, discoverers, and communicators, eager to share what they think and

do" [40]. This forms the foundation for their later learning, as they become mobile and begin to be fluent in verbal language at around 12–18 months old. And if they have access to books, pictures, games and movies, this is when their interest in the meaning-potential of these media starts to grow exponentially. Thus, the second and third years of life are a phenomenally important period in which a great deal of our emotional, social and cultural learning starts to be established. In these three areas, we have to be cautious about the extent to which we can ever hope to gather hard evidence about what has been learned. What we can do however is establish that a child is learning and is investing an extraordinary amount of energy in the process. This should have a significant effect on the judgements we make about the value of toddlers' movie-watching.

## 6. Evidence of learning (1): focused attention

Panksepp describes four emotions that he says are likely to have arisen from basic environmental challenges: fear, panic, rage and seeking, each of which triggers immediate, instinctive actions. They remain deeply embedded in the ancient circuits of our brains because they have continued to be of survival value over millions of years, as humans evolved from earlier mammalian species. The only one of these four emotions whose meaning may not be immediately obvious is "seeking". Panksepp uses this term to describe feelings of engagement and excitement: feelings that generate curiosity, anticipation and investigation. So not only would seeking get early humans (and their evolutionary predecessors) doing things like foraging and finding shelter, but it has always also been essential to logical thought and reflection: it "helps cement the perception of causal connections in the world and thereby creates ideas" ([38], pp. 144–149). In other words, it has been perhaps the most important emotion for us because it has driven human ingenuity and development (for both good and ill). So if we bear this in mind when we see a two-year-old intently gazing at a screen, rather than simply dismissing her behaviour as "mesmerised" or "zombie-like", it makes better sense to interpret it instead as seeking: as an intense process of trying to make sense of what she is watching.

But "seeking" on its own does not tell us enough about what the attentive child is really after. Here Lesley Lancaster's remarkable study of a two-year-old engaged, with her father, in making drawings and marks, may be helpful. Lancaster observes "physical and bodily actions [as] visible indicators of the course of abstract reasoning used whilst engaging with the difficult business of finding out about how a system of symbolic representation works" ([41], p. 132). She describes all of the child's efforts to understand what her father is doing and to make her own meaningful marks on the page, as "characterized by an expectation of significance about the semiotic objects encountered. Children are introduced to them, one way or another, as having a social or affective purpose: the cartoon makes you laugh; the soft toy comforts; writing can entertain and inform" (p. 136). I find the phrase "expectation of significance" highly illuminating in the context of trying to understand what two-year-olds are up to when they clearly seem to be "seeking".

The situation Lancaster describes and the viewing contexts that many toddlers experience is a social one. With toddlers' acute awareness of what others are doing and what their emotional states are, most of them are familiar with occasions when other family members are not only intently watching a film, video or TV programme on a shared screen, but are also exhibiting emotional responses such as laughter, suspense, shock, disgust or surprise, and exchanging comments about what they are watching (readers who only ever watch movies in respectful silence can find exaggerated versions of this behaviour in the British TV show *Gogglebox:*

https://www.channel4.com/programmes/gogglebox/). At minimum then, toddlers who have experienced this will have expectations of significance when they watch any movie. Just as toddlers who are read to will quickly adapt to the conventions of reading, such as sitting still, waiting for page-turns, examining the pictures, etc., they will also quickly become eager to discover and share what is pleasurable and interesting about watching movies.

For a toddler, this is also hard physical work. If he wants to maintain an absolutely steady gaze at something that is not actually in his hands (a big flat-screen television for example) he may well have to brace himself against a nearby object such as a piece of furniture. Studies of human movement and balance point out that a toddler's centre of gravity is higher than that of older children and adults [42] and that in any case, most people can never maintain total stillness for very long [43]. So toddlers have to find ways of supporting themselves if they want to maintain steady visual contact, especially with a large area of moving images. Thus, bracing is often just an essential response for keeping the body stable. From other observations, I noted that if there is not a handy support, the child may stiffen his body and perhaps hunch his shoulders in the effort to maintain a steady position and may even have to pause now and then for a couple of seconds' relaxation before resuming the rigid pose. An adult with an attentive toddler on their lap will be able to feel the child's bodily tension and perhaps his grip on their limb or clothing as he maintains his gaze. If the child is also apprehensive about what he is looking at, the grip is likely to be tighter. Of course, if a child is sitting down watching a movie on a tablet or smartphone, keeping still is not such a problem, although the images are less overwhelming and satisfying.

It is also interesting to observe what a toddler does with her hands, if they are not already in use as part of the "braced" posture. It is likely that wherever the hands were before her attention was focused, they will remain in that position – so continuing to grip a bottle, cup or toy for example, or perhaps simply remaining placed on a nearby piece of furniture. There are parallels here with the way in which a predator such as a cat will instinctively "freeze" when it spots a movement that could be potential prey: if the cat is walking when this happens, one paw may remain raised so that no movement takes place that might alert the prey. A toddler suddenly enthralled by something in a movie will "freeze" in the same way.

The other obvious physical features of focused attention are facial expressions. These can be extremely fleeting, and in the case of toddlers with their relatively plump faces, it can be difficult to spot some expressions such as a frown. The major facial characteristic of more relaxed but still focused attentiveness in toddlers is commonly an open mouth, often accompanied by the typical toddler runny nose. Watching attentively for several minutes with one's mouth open leads to dry lips, so lip-licking will happen regularly, and perhaps also some hasty nose-wipes with a handy sleeve. If a child is watching something attentively while drinking from a bottle or feeder cup, she may have to hold it to one side in order to maintain a gaze on the screen. Highly focused attention – in watching something suspenseful, for example – may be accompanied by deeper breathing – indicated by chest movements. Spotting the tiny rim of tears around a child's eyelids when she is moved by something sad in a movie, is difficult in a live situation but can be spotted in video analysis.

It is when one realises how much energy has to be committed to maintaining this level of attention for any length of time, that it becomes apparent how completely inappropriate terms such as "passive" and mesmerised" are as characterisations of children's focused attention on a movie. For an adult, standing rigidly still, holding tightly to a piece of furniture, frowning, breathing deeply and gazing open-mouthed and fixedly at something for a few minutes will convey some idea of how

much physical energy a toddler can invest in maintaining focused attention. For a toddler, any learning is a very serious business, and the world is full of new things to discover and understand. Additionally, my earlier parallel with a cat's hunting pose indicates that this kind of attentiveness has deep evolutionary roots. The early humans who survived their dangerous environments no doubt did so because they were as good as their non-human ancestors at concentrating very hard, quickly identifying and assessing potential threats or opportunities, and reacting appropriately. They must also have been good at working out solutions to practical problems or intellectual challenges and enjoying the satisfaction of having done so. While it is very often difficult to identify exactly what has caught a toddler's attention in a movie, it has to be recognised that toddlers must have a strong motivation to invest so much energy.

## 7. Evidence of learning (2): emotional responses

Young children can easily be frightened by unexpected things that they do not understand, and this can include things that to a more experienced viewer are completely innocuous. A Google search for "my toddler is scared of TV" on 5th August 2021 yielded "about 8,240,000 results", including numerous instructions to parents about the dangers of watching TV. Discussions on parents' social media sometimes address similar issues, but are more likely to include reassuring advice such as "don't worry, it'll pass". My own interest in studying toddlers' movie-watching behaviour was sparked off by an event in which my 13-month-old twin grandchildren were suddenly terrified by what is clearly meant to be a light-hearted part of an episode of the BBC TV series *In the Night Garden*, in which a puppet character's big black moustache suddenly detaches itself from his face and flies around like a moth. What interested me was that they had seen this episode several times already. So although their ability to follow and interpret the episode must have been growing as they re-viewed it, their generic knowledge had not yet developed enough to be always capable of recognising humorous intent. In fact they did not spontaneously laugh at a visual gag in a movie (the "Water" episode of *Teletubbies* Season 2 - https://en.wikipedia.org/wiki/Teletubbies) until they were 27 months old. Being able to do this involves memory – to hold in mind the sequence of events that leads to the gag, and perhaps also the typical behaviour of a character – and the generic or social knowledge that enables us to anticipate humour as well as to appreciate inappropriateness.

The common-sense parental view, that this is just a phase and will not result in long-term trauma, is probably well-founded, but it makes better sense still if we see it as part of a learning process. Most of us can be frightened, if only momentarily, by sudden and apparently inexplicable phenomena, but we can quickly be reassured if we can draw on our life-experiences to figure out what has happened or talk about it with others. Toddlers have less experience and more limited language skills than pre-schoolers, so their fear responses are magnified by the impossibility of sharing them. It usually does not help much if adults show alarm as well, and it can magnify the distress if co-viewers stop the movie as soon as a toddler expresses fear: watching it through to the end can often help a toddler understand what the point of the frightening bit actually was.

Another perspective on toddlers' "inexplicable fears" is provided by Paul Kagan, who describes how 18–24-month-olds can often be distressed by what they see as violations of states of affairs "which adults have indicated are proper". His examples include broken toys, damaged or dirty clothing and things missing from their usual places ([44], Chapter 5). He links this to their interest in categorising

objects into groups sharing physical or functional similarities (p 88). So a toddler seeing something strange in a movie may be frightened rather than amused, because he sees it as "something that's not supposed to happen". An example of this from my research was when Connie (one of the twins, then aged 24 months) watched the *Peppa Pig* "Sports Day" episode (https://www.youtube.com/watch?v=AJdE21yxwxw) and burst into a storm of tears when the girls-versus-boys tug-of-war contest ended suddenly because the rope broke. In this case it is likely that Connie had invested her narrative expectations in the girls winning the contest: Peppa had failed to win anything so far because she had (typically) wasted time chatting to Daddy Pig. However, in this case there was an interesting sequel. Connie deliberately continued to re-view the episode whenever she could, until – three months later – she had found a way to cope with the breaking rope merely by sighing sadly. This could be seen as an example of self-directed learning, which I discuss in Section 8, below.

Toddlers' responses to sad events or sad characters in movies are different from their fears, because they are already well-attuned to interpreting emotional states in others [45]. They may therefore find it too difficult to watch something sad but find it difficult to explain why. When the twins saw the main character crying in *Baboon on the Moon* (https://vimeo.com/58445945), which they watched at 30 months old, they devised a strategy for dealing with it. Because the sound of snoring can be heard when the movie begins, both children expected to see their mother (Phoebe) appear (because she is famous in the family for snoring). Although Phoebe obviously never does appear in the movie, they both seemed to have convinced themselves that she was there somewhere. She had not watched the movie with them, but came into the room at the end and asked what had happened, seeing that Connie looked sad. Connie rushed into her arms for comfort and then said hesitantly "he … cried" but refused to say more when asked why. She changed the subject, saying very brightly instead "YOU were there, Mummy!" Alfie managed a second viewing, but when asked what he thought of the movie simply said "I liked Mummy!" So in spite of clear evidence to the contrary, both used the "mummy snoring" concept as a way of deflecting their distress about the Baboon's sadness as he gazes tearfully at the faraway Earth from his lonely home on the Moon. This enabled them to resist giving way to tears, although the fact that they were both on the verge of it could be seen in video analysis from the tiny rim of tears on their eyelids and their pursed lips.

## 8. Evidence of learning (3): self-directed viewing

In their 2018 survey of media use [46], Ofcom found that 96% of 3–4-year-olds watched TV on a TV set for an average of 14 hours per week, while 30% also watched TV on other devices, mainly on a tablet. 32% watched TV programmes via what are called "over the top" services, such as Netflix, Now TV or Amazon Prime Video. 36% of 3–4-year-olds played games for an average of over 6 hours per week, and 52% went online, for nearly 9 hours a week – much of which would have entailed going to YouTube for animated movies, funny videos or pranks. While most of these figures increased substantially for older age-groups, it was still the case that watching movies on a TV set, although declining slowly but steadily overall, was still a very important activity for three-year-olds. However, as any parent – and indeed any three-year-old – knows, three-year-olds are not the same as two-year-olds! It is extraordinary how little research there is on two-year-olds' movie consumption, given that researchers, at least, have known since 2005 that many babies start watching movies at around 3 months [47].

In the absence of data on the viewing practices of children younger than 3, we have to make inferences about them. It is likely that at home, when parents are too busy to supervise very young children but know that movie-watching will probably occupy them for a while, they will be more likely to leave them to watch a movie on TV than to hand over a phone or tablet, which might get dropped or fought over; and in any case, the younger the children are, the less likely they will be able to deal with menus on VoD services, digital recorders or DVDs, and may thus be more likely to watch broadcast TV, switched on by a parent, carer or older sibling. So it may be reasonable to surmise that the percentage of two-year-olds watching movies on a TV set could even higher than that of 3–4-year-olds. But we also know that many toddlers do watch movies on mobile devices in their buggies when they are in shops, restaurants or other public places, so they may be watching more movies than older children, when we add up the number of opportunities they get to watch movies on any device. It may also mean that they may now have more opportunities to watch on their own, bearing out Ofcom's claim that "consuming content is becoming a more solitary activity, with many children watching on their mobiles" ([46] p. 4).

But what are they watching? A toddler might be ranging over many types of movie, or she might be going through phases of favourite genres, such as funny cat videos on YouTube. In either case, the more significant outcomes for a two-year-old using a portable device to watch movies on her own would be firstly, that she would be developing her own preferences as regards genres, styles and content, rather than having to go along with others' choices; secondly, that her facility with the technology would rapidly improve; and thirdly, that she would be occupied in self-directed learning as she re-viewed those movies that she judged worth watching more than once – perhaps even many times.

Toddlers' interest in re-viewing movies is another phenomenon that worries many parents. A Google search on "my toddler is obsessed with watching ..." in August 2021 yielded "about 8,630,000 results" with many social media comments revealing how this magnifies parents' existing anxieties about "screen time" and is usually described in pathologizing terms such as "addiction", while links to parental advice sites offers alarming "evidence" about the negative effects this is likely to have on their later lives. It is interesting that social media concerns about demands for repeat viewing are not paralleled in concerns about repeat reading. For example https://theconversation.com/theres-a-reason-your-child-wants-to-read-the-same-book-over-and-over-again-105733 advises parents who "might wonder if all this repetition is beneficial. The answer is yes. Your child is showing they enjoy this story, but also that they are still learning from the pictures, words, and the interactions you have as you read this book together". If this is true for print media, then why would it not also be true for moving-image media?

In the contrast between the discussions of toddlers' "obsessions" with movies and their demands for re-readings of books, we see the folk wisdom at work again. The idea that toddlers might need to re-view the same movie many times because they need to understand the medium, just as they need to hear stories and look at the pictures over and over again, does not figure in either social media debates or scholarly research, although there have been numerous important studies and reviews of toddlers' cultural learning (e.g. [48–52]). We can excuse Vygotsky's failure to mention children's repeat-viewing of movies, given that he was writing in the 1930s and repeat-viewing was not available to the general public until the VHS format for video-cassette players became widely available in the late 1970s. But the same omission by scholars writing in the 1990s and later only serves to demonstrate the durability of the general belief that no one has to learn how to understand movies. It also demonstrates film scholars' lack of interest in child audiences. Even David Bordwell, one of the major scholars in the field, has no qualms about defining

the audiences he is referring to as "schooled perceivers in contemporary Western culture" ([53], p. 34) and no apparent interest in discussing how "perceivers" managed to get "schooled".

## 9. Why study "movie-learning" and what are the challenges?

There has been very little scholarly consideration of the concept that understanding a movie requires some effort, apart from Branigan's 1992 footnote (quoted above). Bryant and Anderson's edited collection of studies, drawn largely from developmental psychologists' work in the 1970s and 1980s, did address "the act of television viewing itself" ([54], p xiii) before the expansion of the domestic VCR market (in the UK) and cable (in the US) radically changed the nature of most children's access to this medium, by enabling re-viewing at will. An important feature of this book is a determination to oppose the then dominant idea among developmental psychologists that visual attention in young viewers "is primarily reactive and controlled by the television set," and to make the radical counter-argument that "visual attention is actively under the control of the viewer, and is in the service of the viewer's efforts to understand the television program" ([55], p. 1). One implication of this argument is that television has distinctive features that need to be understood, so several of the chapters address questions about the specificities of televisual codes and conventions. For example, Meringoff et al. are interested in "the distinctive cognitive consequences for children of their experience with television and other story-bearing media" (p. 151) and recognise the relevance of classical film theory to their research questions, although without any speculation about the age at which dissolves and jump cuts are understood:

> Descriptions of the specific ways that editing techniques are used to suggest associations between shots and to imply transitions in time and space have aroused our curiosity about children's ability to 'read' across film and television story lines. For instance, dissolves and jump cuts imply the passage of time only to those audience members who understand the meaning of those conventions. ([56], p. 157)

But, like most of the book's contributors, their investigation involved older children (in their case 6–7-year-olds and 10–11-year-olds). Huston and Wright ask (again, of older cohorts of children), "What's attractive about television? How does the child learn the codes of television and become increasingly sophisticated in understanding its content?" [57]. But they admit that "…one interpretation of our failure to find large developmental differences might be that we have not sampled children early enough to locate the critical period for familiarisation with television" (p. 43).

The contributors to Bryant and Anderson [54] recognised the need to study younger children but clearly did not want to tackle the methodological challenges of trying to elicit evidence about awareness of movie codes and conventions from children who would be too young to articulate them. They were less conscious of the further limitations imposed on their inquiries by their very schematic accounts of what the "codes of television" are, as well as by their commitment to experimental methods, their cognitivist approach and their reliance on "age and stage" models of child development.

When I was in the Education Department at the British Film Institute (1979–2007), where we worked with children, teachers, and policymakers to try and establish learning about movies within the UK's mainstream primary school curricula, teachers constantly told us about their amazement at children's responses to the materials and approaches we were offering. They were often sceptical about the

movies we provided for them to show (non-mainstream short movies, not necessarily made for children but appropriate for them) and the approaches we suggested, such as getting children to listen to a soundtrack and discuss what they expected to see on the screen, and asking them to think about what features of a movie had generated their response (e.g. laughter, suspense, sadness). But in follow-up discussions they reported their pupils' unexpected levels of knowledge and understanding when discussing movies, and the transformative effect on children of being allowed to talk about a medium they loved. One teacher wrote about her experience as follows:

> I used one of the short films with my literacy set. I found the children motivated, engaged and exceedingly attentive right from the beginning. Their descriptive, inference and predictive skills were extended and they found that they were better at this than they thought because this form of media was familiar to them. The biggest difference was in the participation and quality of work from the boys who were usually not easily enthused by literacy. By the end of two weeks the children had extended their vocabulary and were able to write for a variety of purposes and in different styles with greater confidence. ([58], p. 27)

Even teachers in nursery schools (3- and 4-year-olds) had similar responses, for example:

> When I was told that we were going to have to introduce visual literacy and do filming with nursery children, my heart sank and I thought, "oh no, another initiative'. I was dreading it. I thought I really have got to the end of my career and I can't do this anymore. But when I tried the Baboon film [https://vimeo.com/58445945] with my children for the first time and used the method of play, pause, talk to the children, get them to predict, play all the way through I couldn't believe haw enthralled the children were and how interested. There was no dialogue but they were glued ... and it just took off from there. [quoted in [59], p. 82].

The characteristic teacher response to experiences such as this is excitement about the potential they seem to offer for getting children to be more enthusiastic about the prescribed curriculum. But the first teacher quoted above also comes close to what I see as a more important insight when she says "they found that they were better at this than they thought because this form of media was familiar to them". What she and others who expressed similar excitement could not quite bring themselves to say was that the children they had been teaching were a lot more knowledgeable and confident than they had assumed – a confession most teachers understandably do not like to make. Few researchers have investigated the relationship between traditional literacy and movie knowledge, but the results can be illuminating. Comparing the work of two groups of primary school children, one of whom studied a novel in the traditional way, and the other who also made their own animated version of the novel, David Parker found that in the written work of the moving image class – in contrast to the work of the other class –

> ...we find a device used constantly in moving image media to predicate [sic] an audience towards a particular character and thereby create empathy. It is the use of point-of-view - seeing something through the eyes of another. What is interesting about these examples is not merely that a cinematic stance seems to be taken in terms of the written output, though that is certainly interesting in itself, but that in a piece of writing which aimed to establish the feelings or state of mind of a character, the class which was in the process of producing

> an animation understood that by spatially re-positioning the reader inside the character you could access feelings without necessarily describing them [60].

This observation indicates the potential value of exploring two cultural forms side by side, as a way of deepening understanding of both. It is an immensely important part of children's learning to develop an understanding of how narratives work and of how to make judgements about whether a visual or verbal representation is "real" or "true". Early movie-watching provides a thorough apprenticeship in both.

In Section 4 I discussed the challenges of trying to study toddlers' viewing behaviour and trying to identify evidence of learning to understand the medium, suggesting that the only really effective way of doing this is through "longitudinal, ethnographically- styled and if possible home-based research models". The findings from such studies could potentially challenge the dominant paradigms that prioritise digital media as the object of study and the potential risks of "exposure", but a larger evidence base is needed. Although visiting researchers can and do attempt to do this – the EU Kids Online study is a good example of how this can form the basis of large-scale studies (https://www2.lse.ac.uk/media-and-communications/research/research-projects/eu-kids-online) – identifying significant aspects of toddlers' viewing behaviour at the level of minute detail that I have described in this chapter is both essential if we are to understand pre-verbal learning and impossible unless done by researchers based in the home, who know the children well and are able to respond to toddlers' spontaneous decisions to pay attention. The essential tool for such research is the use of video, given the need to capture minute changes in toddlers' expressions, postures and gestures.

There is plenty of scholarly discussion about the ethics as well as the practicalities and value of using video as a research tool for studying very young children (e.g. [61–65]), almost all of which deals with video use by visiting scholars. These issues could potentially change in studies designed to involve family members in data-gathering: the "video diary" approach. If my arguments in this chapter are seen as persuasive, then one obvious next step could be to design a larger-scale study that co-opted a cohort of parents prepared to commit to a video diary project, gathering evidence of their toddlers' movie-learning.

## 10. Conclusion

In this chapter I have set out the case for a paradigm shift in the study of children and media, on the basis that research in this field so far has largely avoided the study of children younger than 3, has failed to address the cultural dimensions and specificities of children's media experiences, and has over-prioritised the risks of media consumption. I have backed up this case with examples of how close observation of toddlers' behaviour as they watch moving-image media (referred to here as "movies") indicates that they are involved in highly intense learning processes. My accounts of these exemplify the value of an embodied cognition approach in interpreting toddlers' engagements with movies. With reference to nursery and primary school teachers' discoveries of their pupils' unexpectedly sophisticated approaches to movies, I argue that early movie-learning may be a significant contributor to children's later learning. I have not minimised the considerable methodological and ethical challenges that would face any other scholars who wanted to undertake similar research, but I do argue for the value of longitudinal, ethnographically-styled studies, if possible by family members, as a way of exploring this perspective further.

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## Author details

Cary Bazalgette
UCL Institute of Education, London, UK

*Address all correspondence to: carybaz@gmail.com

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